

# Arctic Region Supercomputing Center University of Alaska Fairbanks

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Access Grid Retreat  
30-31 Jan 2001



# ARSC

- University of Alaska Fairbanks
- ~30 full-time staff
- ~220 active users: 30% UAF, 70% external (primarily DOD unclassified science)
- Resources: Cray T3E, SV1, SGI systems, ImmersaDesk, Access Labs, User Services, Technical Services



# ARSC's Motivation

- Distance (!)
  - Within Alaska
  - Interstate
  - International
- Technological Imperative



# Distance

- Users (HPC, Viz, Storage, Services, ...)
- University of Alaska: UAF, UAA, UAS and remote campus locations
- Alaska State Government
- DOD HPCMO - other centers, Washington DC
- Vendors



# Air Travel From Anchorage

- |             |          |
|-------------|----------|
| • Fairbanks | 1 hours  |
| • Juneau    | 2 hours  |
| • Seattle   | 3 hours  |
| • Chicago   | 6 hours  |
| • Frankfurt | 9 hours  |
| • Tokyo     | 10 hours |



# ARSC Connectivity

- Pacific Northwest GigaPop Fairbanks - Seattle [OC12]
- Defense Research Engineering Network (DREN) [OC3]



# ARSC AGN Timeline

- NGI grant proposal and award
- Aug 2000 - Components ordered
- Sep 2000 - AG Tutorial at ANL
- Jan 2001 - Systems operational;  
remodeling and multicast configuration  
remain
- Feb 2001 - Fully Online



# ARSC AGN Site

- Board of Regents Conference Room - Butrovich Building, UAF
- Large, comfortable room
- Easy access for ARSC, UAF faculty, students, administration, visitors
- High visibility





# AGN Planned Usage

- Teaching: joint classes, demos, tutorials
- Meetings and Demonstrations
- R&D collaborations - videoconferencing and beyond...
- Huge potential for closer ties with remote users and other sites



# User Specialties

- Geophysics, space physics, astronomy
- Oceanography: Arctic ocean circulation, coupled biology-circulation models
- Engineering: Arctic, petroleum, mining, electrical
- Climate/Weather: research and forecasting
- Ecosystems, Hydrology



# Teaching Possibilities

- Don Morton - University of Montana
- Guy Robinson, Lori LeBrock, Darrell Hicks, Chris Hartman, Glenn Chappell - UAF
- Engineer Research and Development Center (ERDC)
- Albuquerque HPCC, Maui HPCC



# R&D Possibilities

- Chris Moore, Al Hermann - PMEL/NOAA, University of Washington
- Piero Pierucci - Rome; Bill Brody, Chris Hartman - ARSC
- US Army Cold Regions Test Center - Delta Junction, AK
- ERDC



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